We claim:

1. A modified medical device for delivery of a pharmaceutically active material comprising:

a conventional medical device, said conventional medical device comprising an incompatible metallic or polymeric component which comes into contact with a pharmaceutically active material during conventional use and acts to substantially reduce pharmaceutical effectiveness of said pharmaceutically active material upon said contact;

wherein said incompatible metallic or polymeric component is modified to diminish said substantial reduction in the pharmaceutical effectiveness of the pharmaceutically active material.

2. The modified medical device of claim 1, wherein said conventional medical device comprises an incompatible metallic component.

3. The modified medical device of claim 2, wherein said medical device is an intravascular catheter having a metallic injection lumen.

4. The modified medical device of claim 3, wherein said intravascular catheter is an injection catheter.

5. The modified medical device of claim 3, wherein said intravascular catheter is a percutaneous myocardial revascularization catheter.

6. The modified medical device of claim 3, wherein said metallic injection lumen comprises a metal selected from the group consisting of stainless steel and nitinol.

7. The modified medical device of claim 2, wherein said incompatible metallic component is a lumen comprising stainless steel or nitinol.

8. The modified medical device of claim 2, wherein said incompatible metallic component is a hypodermic needle.

9. The modified medical device of claim 2, wherein said medical device is a metallic stent coated with a polymer for delivery of said pharmaceutically active material.

10. The modified medical device of claim 9, wherein the stent comprises stainless steel or nitinol.

11. The modified medical device of claim 1, wherein the conventional medical device comprises an incompatible polymeric component.

12. The modified medical device of claim 11, wherein the incompatible polymeric component comprises at least one polymer selected from polycarbonate, polyimide, poly ether ether ketone (PEEK), nylon and acrylonitrile/butadiene/styrene resin.

13. The modified medical device of claim 1, wherein the incompatible metallic or polymeric component is modified by providing it with a surface treatment.

14. The modified medical device of claim 13, wherein said surface treatment comprises a chemical passivation treatment.

15. The modified medical device of claim 14, wherein said chemical passivation treatment comprises treatment of a incompatible metallic component with an acid.

16. The modified medical device of claim 15, wherein said acid is citric acid or nitric acid.

17. The modified medical device of claim 14, wherein said chemical passivation treatment comprises treatment with steam.

18. The modified medical device of claim 13, wherein said surface treatment comprises treating the incompatible metallic or polymeric component with a composition comprising a pharmaceutically acceptable natural polymer.

19. The modified medical device of claim 18, wherein said natural polymer is a protein.

20. The modified medical device of claim 13, wherein said surface treatment comprises providing said incompatible metallic or polymeric component with a layer of more compatible synthetic polymeric material.

21. The modified medical device of claim 20, wherein said more compatible polymeric material is selected from a polyalkylene and a fluorocarbon.

22. The modified medical device of claim 21, wherein said more compatible polymeric material is selected from low density polyethylene, high density polyethylene, polypropylene, polytetrafluoroethylene, poly(tetrafluoroethylene-co-hexafluoropropene), modified ethylene-tetrafluoroethylene copolymer, ethylene chlorotrifluoroethylene copolymer and polyvinylidene fluoride.

23. The modified medical device of claim 20, wherein said more compatible polymeric material is provided by coating the incompatible metallic or polymeric component with uncured polymer, and curing said uncured polymer.

24. The modified medical device of claim 23, wherein said polymer is a silicone resin.

25. The modified medical device of claim 20, wherein said more compatible polymeric material is provided in the form of a preformed polymer composition.

26. The modified medical device of claim 13, wherein said surface treatment comprises providing said incompatible metallic or polymeric component with a layer of inorganic material.

27. The modified medical device of claim 26, wherein said inorganic material is selected from carbon and fused silica fibers.

28. The modified medical device of claim 26, wherein said inorganic material is provided by chemical vapor deposition onto an incompatible metallic component.

29. The modified medical device of claim 13, wherein said surface treatment comprises providing said incompatible metallic or polymeric component with a layer of a more compatible metallic material.

30. The modified medical device of claim 29, wherein said more compatible metallic material is selected from titanium and platinum.

31. The modified medical device of claim 1, wherein said incompatible metallic or polymeric component is replaced with a more compatible metallic component.

32. The modified medical device of claim 31, wherein said more compatible metallic component is selected from titanium and platinum.

33. The modified medical device of claim 1 wherein said incompatible metallic or polymeric component is replaced with a more compatible polymeric component.

34. The modified medical device of claim 33, wherein said more compatible polymeric component is selected from a polyalkylene and a fluorocarbon.

35. The modified medical device of claim 33, wherein said more compatible polymeric component is selected from low density polyethylene, high density polyethylene, polypropylene, polytetrafluoroethylene, poly(tetrafluoroethylene-co-hexafluoropropene), modified ethylene-tetrafluoroethylene copolymer, ethylene chlorotrifluoroethylene copolymer or polyvinylidene fluoride.

36. The modified medical device of claim 19 , wherein said treatment is provided by formulating said protein together with said pharmaceutically active material.

37. The modified medical device of claim 18, wherein said treatment is provided by formulating said natural polymer together with said pharmaceutically active material.

38. The modified medical device of claim 19, wherein said protein is albumin.

39. The modified medical device of claim 18, wherein the natural polymer is selected from hyaluronic acid, laminin, fibronectin, fibrin, collagen dextran, dextran sulfate and heparin.

40. The modified medical device of claim 18, wherein said natural polymer is a polysaccharide.

41. The modified medical device of claim 13, wherein said surface treatment comprises treating the incompatible metallic or polymeric component with a composition comprising a contrast agent.

42. The modified medical device of claim 41, wherein said contrast agent is iohexol.

43. The modified medical device of claim 13, wherein said surface treatment comprises treating the incompatible metallic or polymeric component with a composition comprising blood or serum.

44. The modified medical device of claim 1, wherein said pharmaceutically active material comprises an agent selected from the group consisting of polynucleotides, proteins, small molecule drugs and large molecule drugs.

45. The modified medical device of claim 1, wherein said medical device is a transmyocardial revascularization device.

46. The modified medical device of claim 1 wherein said incompatible metallic or polymeric component is replaced with a more compatible fused silica fiber component.

47. A modified medical device for delivery of a virus or virus-like particles comprising:

a conventional medical device, said conventional medical device comprising an incompatible metallic or polymeric component which comes into contact with said virus or virus-like particles during conventional use and acts to substantially reduce pharmaceutical effectiveness of said virus or virus-like particles upon said contact;

wherein said incompatible metallic or polymeric component is modified to diminish said substantial reduction in the pharmaceutical effectiveness of the virus or virus-like particles.

48. A method of rendering a medical device suitable for contact with a pharmaceutically active material comprising:

identifying a component from said device, said component comprising an incompatible metallic or polymeric component which acts to substantially reduce pharmaceutical effectiveness of said pharmaceutically active material upon contact with said metallic or polymeric component during use; and

modifying said incompatible metallic or polymeric component to diminish the reduction in pharmaceutical effectiveness of said pharmaceutically active material.